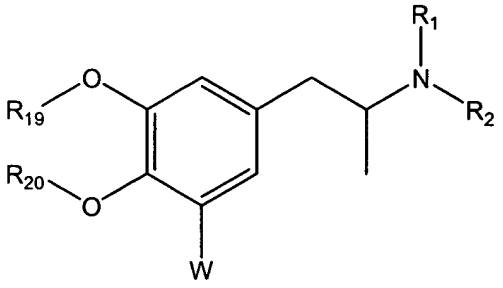
Amendments to the Claims

Please amend the claims as follows:

1. (original) A compound of the formula:



Formula I

wherein: R^{19} is lower alkyl or is taken together with R^{20} to form a ring, which may be a five- or six-member ring, usually a five-member ring;

R^{20} is lower alkyl, or is taken together with R^{19} to form a ring as discussed above,

R^1 is H or lower alkyl,

R^2 is H, lower alkyl, a protecting group or

(a) $-(CH_2)_aC(O)(CH_2)_bSR^3$, wherein a is 0 to 5, b is 1 to 5 and R^3 is H or lower alkyl or $(CH_2)_cC(O)NR^4R^5$ wherein R^4 is H or lower alkyl and R^5 is H, an immunogenic carrier or a label, or

(b) $(A)_d(Q)_n$ wherein Q is H or $-(CH_2)_eCH(R^8)(CH_2)_fOC(O)(CH_2)_gR^9$ being H only when d is 1 wherein A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH)_2NR^{11}-$, d is 0 or 1, n is 0 or 1 wherein one of d or n is 1, h is 1 to 5, R^{10} is H or lower alkyl, j is 1 to 5, k is 1 to 5, m is 1 to 3, R^{11} is H or lower alkyl, e is 1 to 5, R^8 is OH or H, f is 1 to 5, g is 0 to 5, and R^9 is H, an immunogenic carrier or a label;

W is H or JR^{14} being H when R^2 is other than H or lower alkyl, wherein

J is O or S,

R^{14} is H, lower alkyl, a protecting group, or $-(CH_2)_rC(O)NR^{15}(CH_2)_s(D)_tR^{16}$, wherein r is 1 to 5, R^{15} is H or lower alkyl, s is 1 to 5, D is S, O or N, t is 0 or 1 being 0 when R^{16} is maleimidyl or succinimidyl, R^{16} is H, maleimidyl, succinimidyl, or $-(CH_2)_qC(O)NR^{17}R^{18}$,

q is 1 to 5,

R^{17} is H or lower alkyl,

R^{18} is H, lower alkyl, an immunogenic carrier or label,

and including the acid salts thereof.

2. (original) A compound according to Claim 1 wherein R^1 is H and R^2 is H.

3. (original) A compound according to Claim 1 wherein R^1 is H and R^2 is lower alkyl.

4. (original) A compound according to Claim 3 wherein R^{16} is $-(CH_2)_qC(O)NR^{17}R^{18}$ and R^{18} is a poly(amino acid).

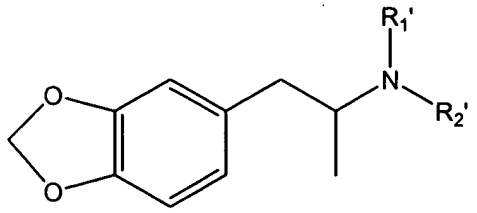
5~~6~~. (currently amended) A compound according to Claim 1 wherein R^1 is H or lower alkyl, W is H and R^2 is $-(CH_2)_aC(O)(CH_2)_bSR^3$, wherein R^3 is $-(CH_2)_cC(O)NR^4R^5$ wherein R^4 is H or lower alkyl and R^5 is a poly(amino acid).

6~~7~~. (currently amended) A compound according to Claim 1 wherein R^1 is H or lower alkyl, W is H and R^2 is $-(CH_2)_aC(O)(CH_2)_bSR^3$, wherein R^3 is $-(CH_2)_cC(O)NR^4R^5$ wherein R^4 is H or lower alkyl and R^5 is an immunogenic carrier.

7~~8~~. (currently amended) A compound according to Claim 1 wherein R^1 is H or lower alkyl, W is H and R^2 is $(A)_d(Q)_n$ wherein d is 0, n is 1, Q is $-(CH_2)_eCH(R^8)(CH_2)_fOC(O)(CH_2)_gR^9$ and R^9 is a poly(amino) acid.

8~~9~~. (currently amended) A compound according to Claim 1 wherein R^1 is H or lower alkyl, W is H and R^2 is $(A)_d(Q)_n$ wherein d is 1, n is 1, Q is $-(CH_2)_eCH(R^8)(CH_2)_fOC(O)(CH_2)_gR^9$ and A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH)_2NR^{11}-$, and R^9 is a poly(amino) acid.

9~~10~~. (currently amended) A compound of the formula:



Formula II

wherein: $R^{1'}$ is H, lower alkyl or a protecting group,

$R^{2'}$ is a protecting group, or

(a) $-(CH_2)_aC(O)(CH_2)_bSR^{3'}$, wherein a is 0 to 5, b is 1 to 5 and $R^{3'}$ is H or lower alkyl or $(CH_2)_cC(O)NR^{4'}R^{5'}$ wherein $R^{4'}$ is H or lower alkyl and $R^{5'}$ is H, an immunogenic carrier or a label, or

(b) $(A)_d(Q)_n$ wherein Q is H or $-(CH_2)_eCH(R^{8'})(CH_2)_fOC(O)(CH_2)_gR^{9'}$ being H only when d is 1 wherein A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH)_2NR^{11}-$, d is 0 or 1, n is 0 or 1 wherein one of d or n is 1, h is 1 to 5, R^{10} is H or lower alkyl, j is 1 to 5, k is 1 to 5, m is 1 to 3, R^{11} is H or lower alkyl, e is 1 to 5, $R^{8'}$ is OH or H, f is 1 to 5, g is 0 to 5, and $R^{9'}$ is H, an immunogenic carrier or a label,

and including the acid salts thereof.

10~~11~~. (currently amended) A compound according to Claim 9~~10~~ wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $-(CH_2)_aC(O)(CH_2)_bSR^3$ wherein a is 0, b is 1, R^3 is H.

11~~12~~. (currently amended) A compound according to Claim 9~~10~~ wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $-(CH_2)_aC(O)(CH_2)_bSR^{3'}$ wherein a is 0, b is 1, $R^{3'}$ is $(CH_2)_cC(O)NR^{4'}R^{5'}$ wherein c is 1, $R^{4'}$ is H and $R^{5'}$ is a poly(amino) acid.

12~~13~~. (currently amended) A compound according to Claim 11~~12~~ wherein said poly(amino) acid is an enzyme or an immunogen.

13~~14~~. (currently amended) A compound according to Claim 9~~10~~ wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $-(CH_2)_aC(O)(CH_2)_bSR^{3'}$ wherein a is 0, b is 1, $R^{3'}$ is $(CH_2)_cC(O)NR^{4'}R^{5'}$ wherein c is 1, $R^{4'}$ is H and $R^{5'}$ is an immunogenic carrier.

1415. (currently amended) A compound according to Claim 910 wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $-(CH_2)_aC(O)(CH_2)_bSR^{3'}$ wherein a is 0, b is 1, $R^{3'}$ is $(CH_2)_cC(O)NR^{4'}R^{5'}$ wherein c is 1, $R^{4'}$ is H and $R^{5'}$ is a particle.

1516. (currently amended) A compound according to Claim 910 wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $(A)_d(Q)_n$ wherein d is 0, n is 1, Q is $-(CH_2)_eCH(R^{8'})(CH_2)_fOC(O)(CH_2)_gR^{9'}$, e is 1, $R^{8'}$ is OH, f is 1, g is 0 and $R^{9'}$ is a poly(amino) acid.

1617. (currently amended) A compound according to Claim 1516 wherein said poly(amino) acid is an enzyme or an immunogen.

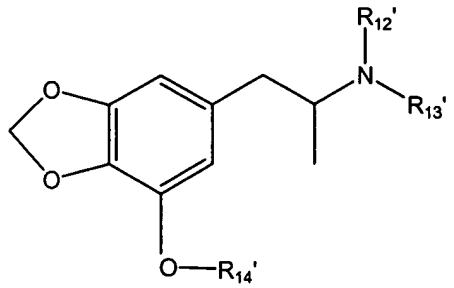
1718. (currently amended) A compound according to Claim 910 wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $(A)_d(Q)_n$ wherein d is 0, n is 1, Q is H, A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH)_2NR^{11}-$, $R^{10'}$ is H, h is 2, m is 1, j is 2, k is 2, $R^{10'}$ is H.

1819. (currently amended) A compound according to Claim 910 wherein $R^{1'}$ is H or lower alkyl and $R^{2'}$ is $(A)_d(Q)_n$ wherein d is 1, n is 1, Q is $-(CH_2)_eCH(R^{8'})(CH_2)_fOC(O)(CH_2)_gR^{9'}$, e is 1, $R^{8'}$ is OH, f is 1, g is 0, A is $-C(O)(CH_2)_hC(O)NR^{10}((CH_2)_jO(CH_2)_kO)_m(CH)_2NR^{11}-$, $R^{10'}$ is H, h is 2, m is 1, j is 2, k is 2, $R^{10'}$ is H and $R^{9'}$ is a poly(amino) acid or a particle.

1920. (currently amended) A compound according to Claim 1819 wherein $R^{9'}$ is a poly(amino) acid, which is an enzyme or an immunogen.

2021. (currently amended) A compound according to Claim 1819 wherein $R^{9'}$ is a particle

2122. (currently amended) A compound of the formula:



Formula III

wherein: $R^{12'}$ is H or lower alkyl,

$R^{13'}$ is H or lower alkyl,

$R^{14'}$ is a protecting group, or $-(CH_2)_rC(O)NR^{15'}(CH_2)_s(D)_tR^{16'}$, wherein r is 1 to 5, $R^{15'}$ is H or lower alkyl, s is 1 to 5, D is S, O or N, t is 0 or 1 being 0 when $R^{16'}$ is maleimidyl or succinimidyl, $R^{16'}$ is H, a protecting group, maleimidyl or succinimidyl, or $-(CH_2)_qC(O)NR^{17'}R^{18'}$,

$R^{17'}$ is H, lower alkyl or a protecting group,

$R^{18'}$ is H, lower alkyl, a protecting group, an immunogenic carrier or label,

and including salts thereof.

2223. (currently amended) A compound according to Claim 2122 wherein $R^{12'}$ is H and $R^{13'}$ is H or lower alkyl, $R^{14'}$ is $-(CH_2)_rC(O)NR^{15'}(CH_2)_s(D)_tR^{16'}$, wherein r is 1, $R^{15'}$ is H, s is 2, D is S, t is 1 and $R^{16'}$ is H.

2324. (currently amended) A compound according to Claim 2122 wherein $R^{12'}$ is H and $R^{13'}$ is H or lower alkyl, $R^{14'}$ is $-(CH_2)_rC(O)NR^{15'}(CH_2)_s(D)_tR^{16'}$, wherein r is 1, $R^{15'}$ is H, s is 2, t is 0 and $R^{16'}$ is succinimidyl or maleimidyl.

2425. (currently amended) A compound according to Claim 2122 wherein $R^{12'}$ is H and $R^{13'}$ is H or lower alkyl, $R^{14'}$ is $-(CH_2)_rC(O)NR^{15'}(CH_2)_s(D)_tR^{16'}$, wherein r is 1, $R^{15'}$ is H, s is 2, D is S, t is 1 and $R^{16'}$ is $-(CH_2)_qC(O)NR^{17'}R^{18'}$, q is 1, $R^{17'}$ is H and $R^{18'}$ is a poly(amino) acid or a particle.

2526. (currently amended) A compound according to Claim 2425 wherein $R^{18'}$ is a particle.

2627. (currently amended) An antibody raised against a compound according to Claim 1617 wherein said poly(amino) acid is an immunogen..

2728. (currently amended) An antibody raised against a compound according to Claim 1920 wherein said poly(amino) acid is an immunogen..

2829. (currently amended) An antibody raised against a compound according to Claim 2425 wherein $R^{17'}$ is a poly(amino) acid, which is an immunogen..

2930. (currently amended) A reagent system comprising a compound according to Claim 1617 wherein said poly(amino) acid is an enzyme, an antibody for methylenedioxyamphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

3031. (currently amended) A reagent system comprising a compound according to Claim 1920 wherein said poly(amino) acid is an enzyme, an antibody for methylenedioxyamphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

3132. (currently amended) A reagent system comprising a compound according to Claim 2425 wherein $R^{17'}$ is a poly(amino) acid, which is an enzyme, an antibody for methylenedioxyamphetamine and/or an antibody for methylenedioxymethamphetamine and/or an antibody for methylenedioxyethamphetamine.

3233. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample and

(ii) a reagent system according to Claim 2930; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

3334. (currently amended) A method according to Claim 3233 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

3435. (currently amended) A method according to Claim 3334 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

3536. (currently amended) A method according to Claim 3334 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

3637. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxy-methamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample and

(ii) a reagent system according to Claim 3031; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said

methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

3738. (currently amended) A method according to Claim 3637 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

3839. (currently amended) A method according to Claim 3738 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

3940. (currently amended) A method according to Claim 3738 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

4041. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample and

(ii) a reagent system according to Claim 3132; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine in said sample.

4142. (currently amended) A method according to Claim 4041 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of

said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

42~~43~~. (currently amended) A method according to Claim 41~~42~~ wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

43[[44]]. (currently amended) A method according to Claim 41~~42~~ wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

44~~45~~. (currently amended) A method for determining amphetamine and/or methamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

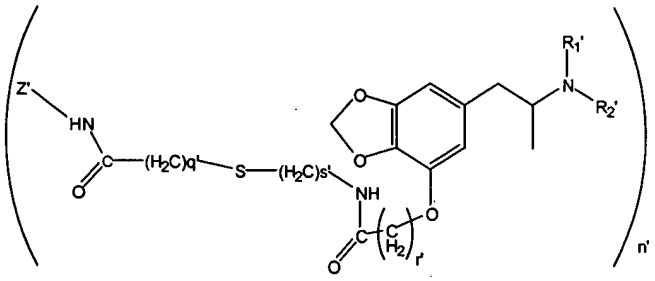
(i) said sample,

(ii) an antibody for methylenedioxyamphetamine, and/or

(iii) an antibody for methylenedioxymethamphetamine, and/or

(iv) an antibody for methylenedioxyethamphetamine, and

(v) a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H, methyl or ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an enzyme,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

4546. (currently amended) A method according to Claim 4445 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylene-dioxyethamphetamine in said sample.

4647. (currently amended) A method according to Claim 4546 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

4748. (currently amended) A method according to Claim 4546 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

4849. (currently amended) A method according to Claim 4445 wherein said enzyme is glucose-6-phosphate dehydrogenase.

4950. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxy-methamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

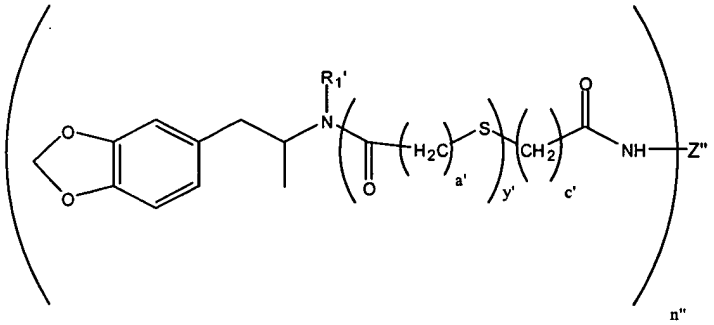
(i) said sample,

(ii) an antibody for methylenedioxyamphetamine, and/or

(iii) an antibody for methylenedioxymethamphetamine, and/or

(iv) an antibody for methylenedioxyethamphetamine, and

(v) a compound of the formula:



wherein:

R^{1}' is H, or methyl, or ethyl,

a' is 1 to 5,

y' is 1,

Z' is an enzyme,

c' is 1 to 5,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxymethamphetamine in said sample.

5051. (currently amended) A method according to Claim 4950 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of

said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

5152. (currently amended) A method according to Claim 5051 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

5253. (currently amended) A method according to Claim 5051 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

5354. (currently amended) A method according to Claim 4950 wherein said enzyme is glucose-6-phosphate dehydrogenase.

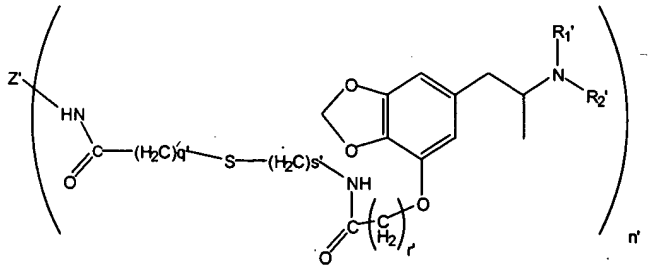
5455. (currently amended) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample,

(ii) conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog,

(i) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H,

r' is 1 to 5,

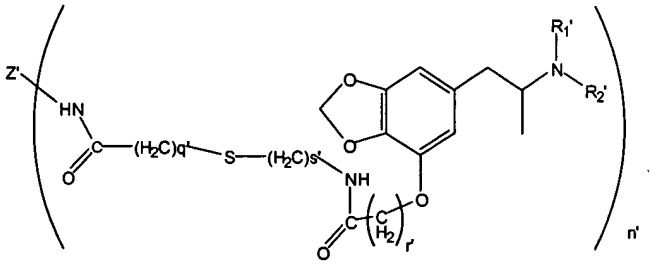
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is methyl,

r' is 1 to 5,

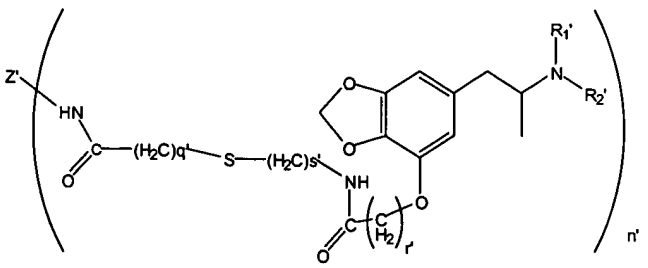
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

5556. (currently amended) A method according to Claim 5455 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

5657. (currently amended) A method according to Claim 5556 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

5758. (currently amended) A method according to Claim 5556 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

58. (original) A method according to Claim 55 wherein said enzyme is glucose-6-phosphate dehydrogenase.

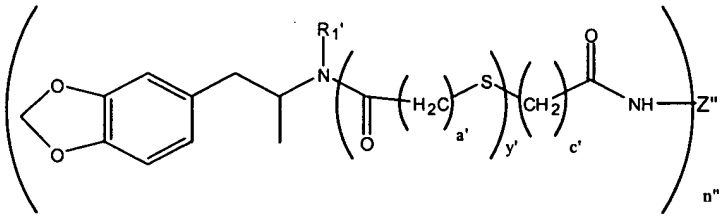
59. (original) A method for determining methylenedioxyamphetamine and/or methylenedioxymethamphetamine in a sample suspected of containing methylenedioxyamphetamine and/or methylenedioxymethamphetamine, said method comprising:

(a) providing in combination in a medium:

(i) said sample,

(ii) a conjugate of an enzyme and an methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog,

(i) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1}' is H,

a' is 1 to 5,

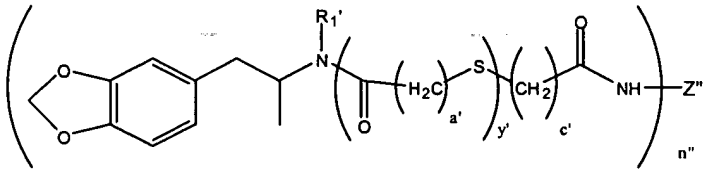
y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iv) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1}' is methyl,

a' is 1 to 5,

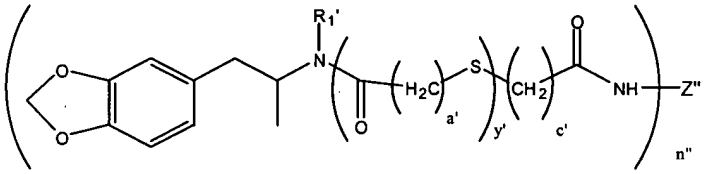
y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(v) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1}' is ethyl,

a' is 1 to 5,

y' is 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and

(b) examining said medium for the presence of a complex comprising said methylenedioxyamphetamine and said antibody for methylenedioxyamphetamine and/or a complex of said methylenedioxymethamphetamine and said antibody for methylenedioxymethamphetamine and/or a complex of said methylenedioxyethamphetamine and said antibody for methylenedioxyethamphetamine, the presence thereof indicating the presence of said amphetamine and/or methamphetamine and/or methylenedioxyethamphetamine in said sample.

60. (original) A method according to Claim 59 wherein said examining comprises measuring signal from said enzyme, the amount thereof being related to the presence of said methylenedioxyamphetamine and/or methylenedioxymethamphetamine and/or methylenedioxyethamphetamine in said sample.

61. (original) A method according to Claim 60 wherein said method is a homogeneous method and said medium is examined for the amount of said signal.

62. (original) A method according to Claim 60 wherein said method is a heterogeneous method and said complex, if present, is separated from said medium and said medium or said complex is examined for the amount of said signal.

63. (original) A method according to Claim 59 wherein said enzyme is glucose-6-phosphate dehydrogenase.

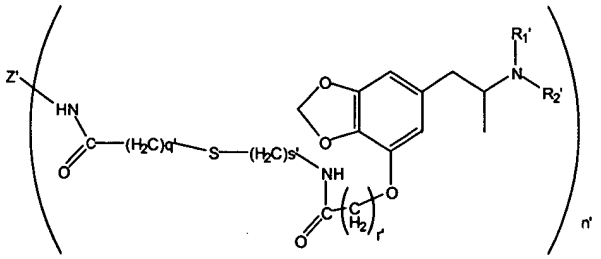
64. (original) A kit comprising in packaged combination:

(i) an antibody for methylenedioxyamphetamine, and/or

(ii) an antibody for methylenedioxymethamphetamine, and/or

(iii) an antibody for methylenedioxyethamphetamine, and

(iv) a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H, methyl, or ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

Z' is an enzyme such as, for example, glucose-6-phosphate dehydrogenase,

n' is an integer between 1 and the molecular weight of said enzyme divided by about 500.

65. (original) A kit according to Claim 64 wherein said enzyme is glucose-6-phosphate dehydrogenase.

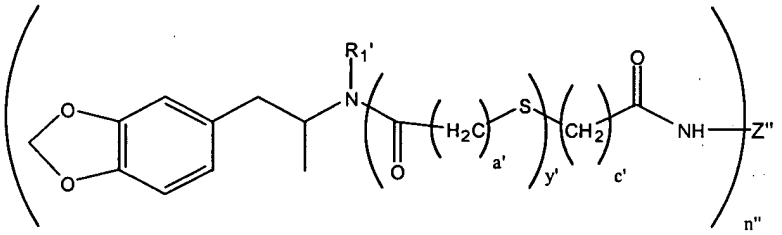
66. (original) A kit comprising in packaged combination:

(i) an antibody for methylenedioxyamphetamine,

(ii) an antibody for methylenedioxymethamphetamine, and/or

(iii) an antibody for methylenedioxyethamphetamine, and

(iv) a compound of the formula:



wherein:

R^{1}' is H, methyl or ethyl,

a' is 1 to 5, usually 1,

y' is 0 or 1,

Z' is an enzyme such as, for example, glucose-6-phosphate dehydrogenase,

c' is 1 to 5,

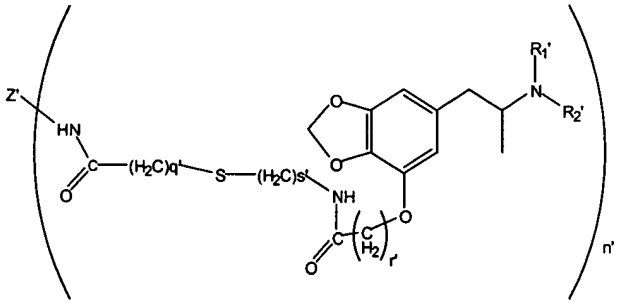
n' is an integer between 1 and the molecular weight of said enzyme divided by about 500.

67. (original) A kit according to Claim 66 wherein said enzyme is glucose-6-phosphate dehydrogenase.

68. (original) A kit comprising in packaged combination:

(i) a conjugate of an enzyme and a methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and/or a conjugate of an enzyme and a methylenedioxyethamphetamine analog, and

(ii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is H,

r' is 1 to 5,

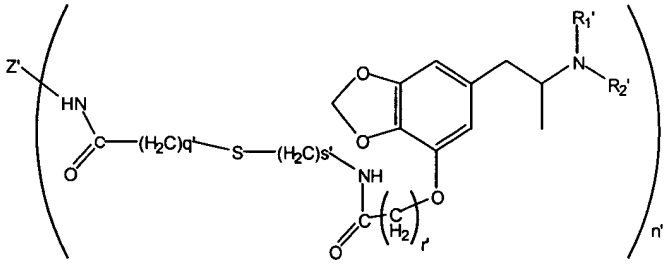
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

$R^{2'}$ is methyl,

r' is 1 to 5,

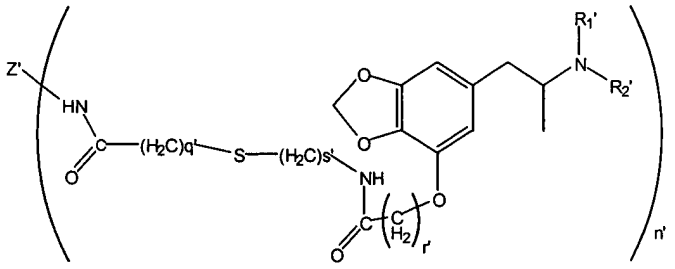
s' is 1 to 5,

q' is 1 to 5,

Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

R^{1}' is H,

R^{2}' is ethyl,

r' is 1 to 5,

s' is 1 to 5,

q' is 1 to 5,

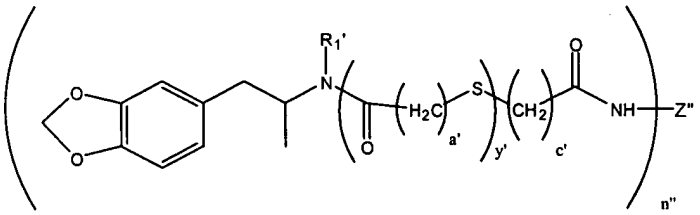
Z' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500.

69. (original) A kit comprising in packaged combination:

(i) a conjugate of an enzyme and an methylenedioxyamphetamine analog and/or a conjugate of an enzyme and a methylenedioxymethamphetamine analog, and

(ii) an antibody for methylenedioxyamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is H,

a' is 1 to 5,

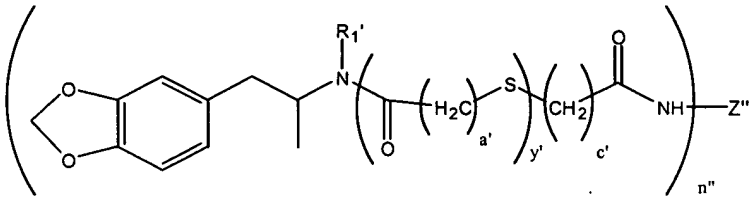
y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500; and/or

(iii) an antibody for methylenedioxymethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is methyl,

a' is 1 to 5,

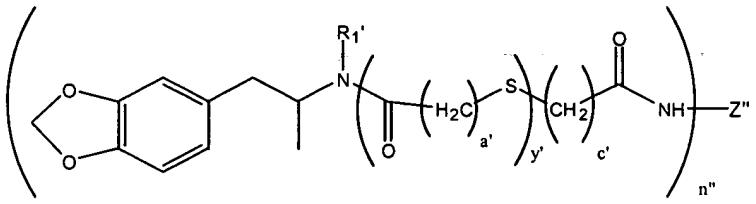
y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500, and/or

(iv) an antibody for methylenedioxyethamphetamine, said antibody being raised against a compound of the formula:



wherein:

$R^{1'}$ is ethyl,

a' is 1 to 5,

y' is 0 or 1, usually 1,

Z'' is an immunogenic protein or a non-poly(amino acid) immunogenic carrier,

c' is 1 to 5,

n'' is an integer between 1 and the molecular weight of said immunogenic protein or said immunogenic carrier divided by about 500.